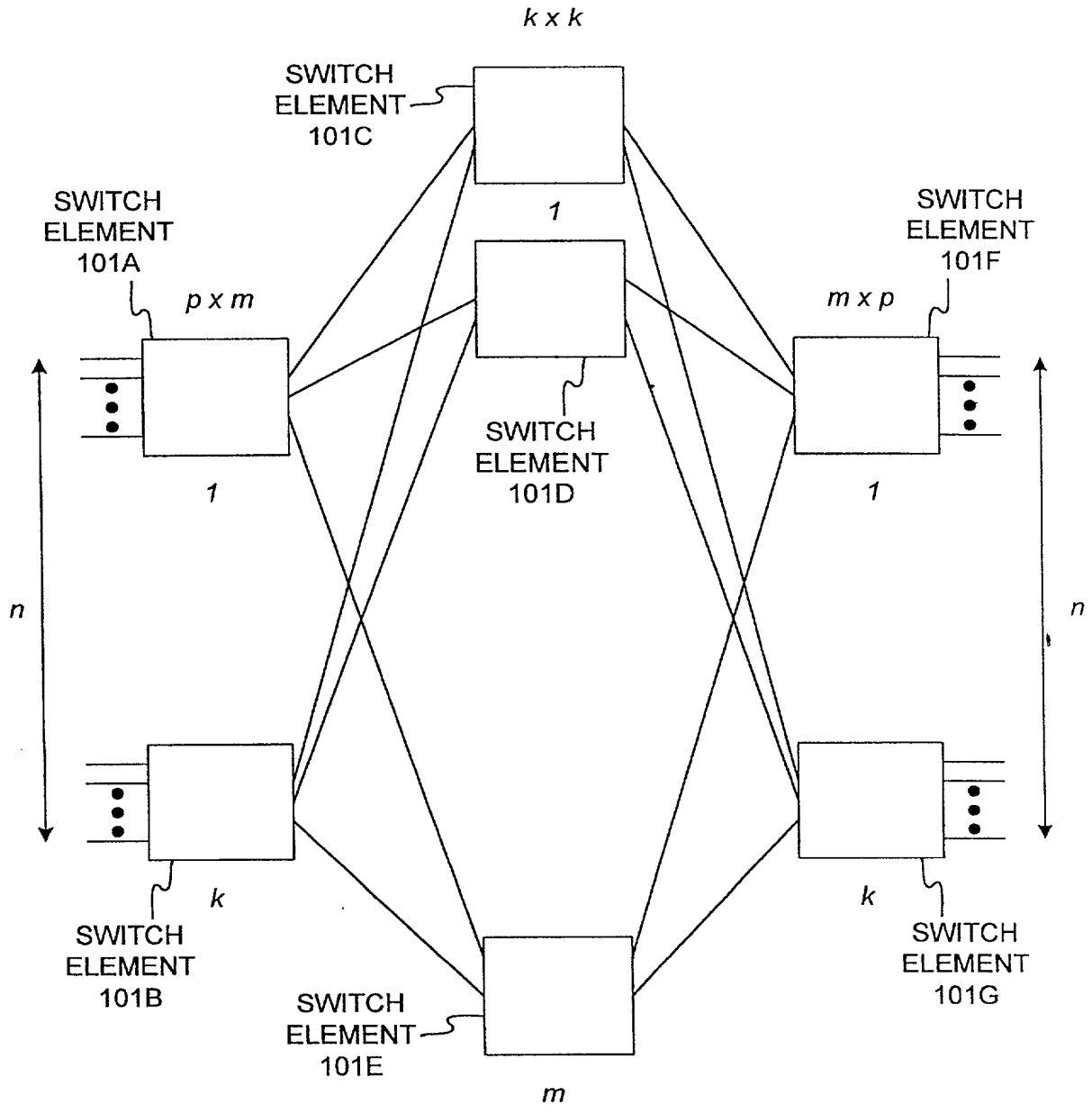
k x k
SWITCH ELEMENT 101C
1
SWITCH ELEMENT 101A
p x m
SWITCH ELEMENT 101F
m x p
SWITCH ELEMENT 101D
1
1
n
n
k
k
SWITCH ELEMENT 101B
SWITCH ELEMENT 101G
SWITCH ELEMENT 101E
m

FIGURE 1

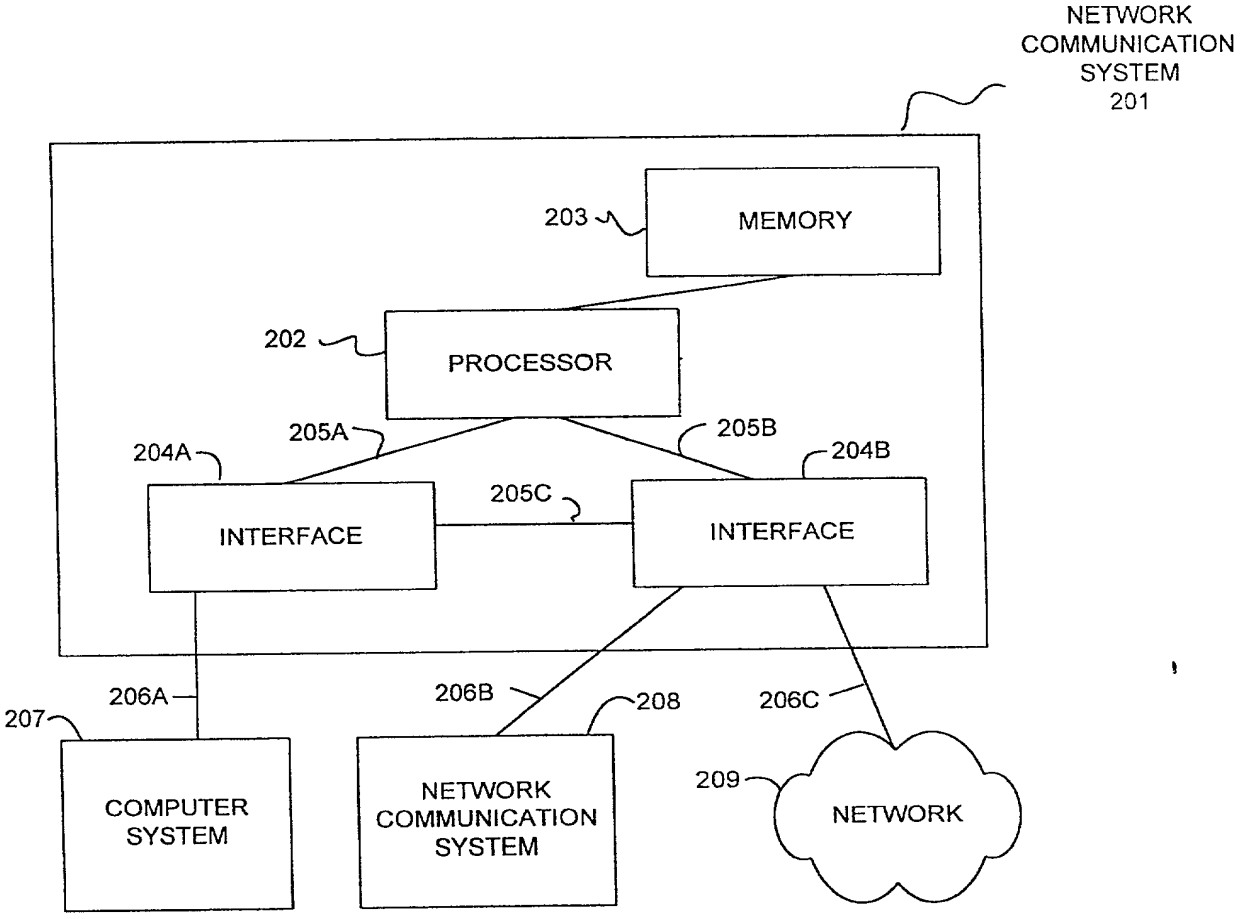
NETWORK
COMMUNICATION
SYSTEM
201
203
MEMORY
202
PROCESSOR
205A
205B
204A
204B
205C
INTERFACE
INTERFACE
206A
206B
208
206C
207
209
COMPUTER
SYSTEM
NETWORK
COMMUNICATION
SYSTEM
NETWORK

FIGURE 2

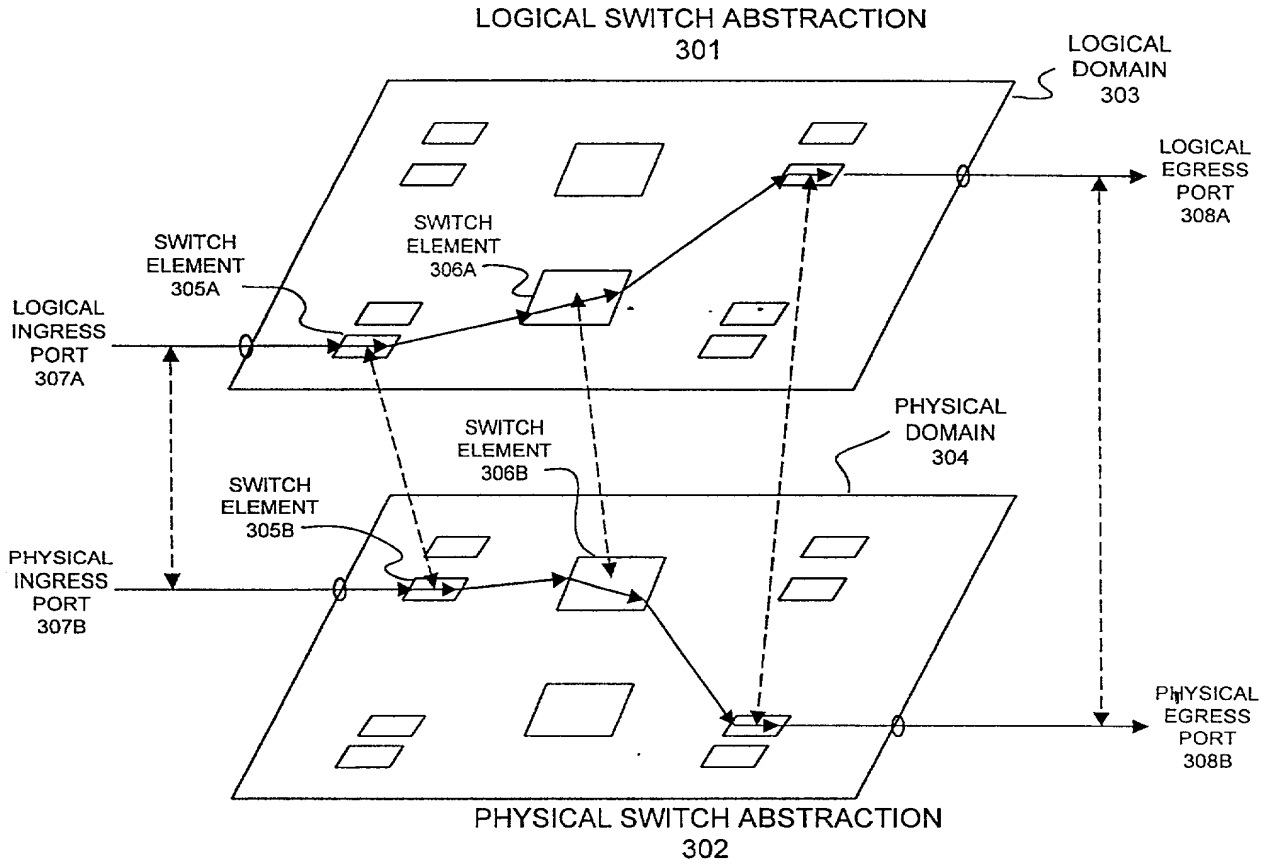
LOGICAL SWITCH ABSTRACTION
301
LOGICAL
DOMAIN
303
LOGICAL
EGRESS
PORT
308A
SWITCH
ELEMENT
305A
SWITCH
ELEMENT
306A
LOGICAL
INGRESS
PORT
307A
PHYSICAL
DOMAIN
304
SWITCH
ELEMENT
306B
SWITCH
ELEMENT
305B
PHYSICAL
INGRESS
PORT
307B
PHYSICAL
EGRESS
PORT
308B
PHYSICAL SWITCH ABSTRACTION
302

FIGURE 3

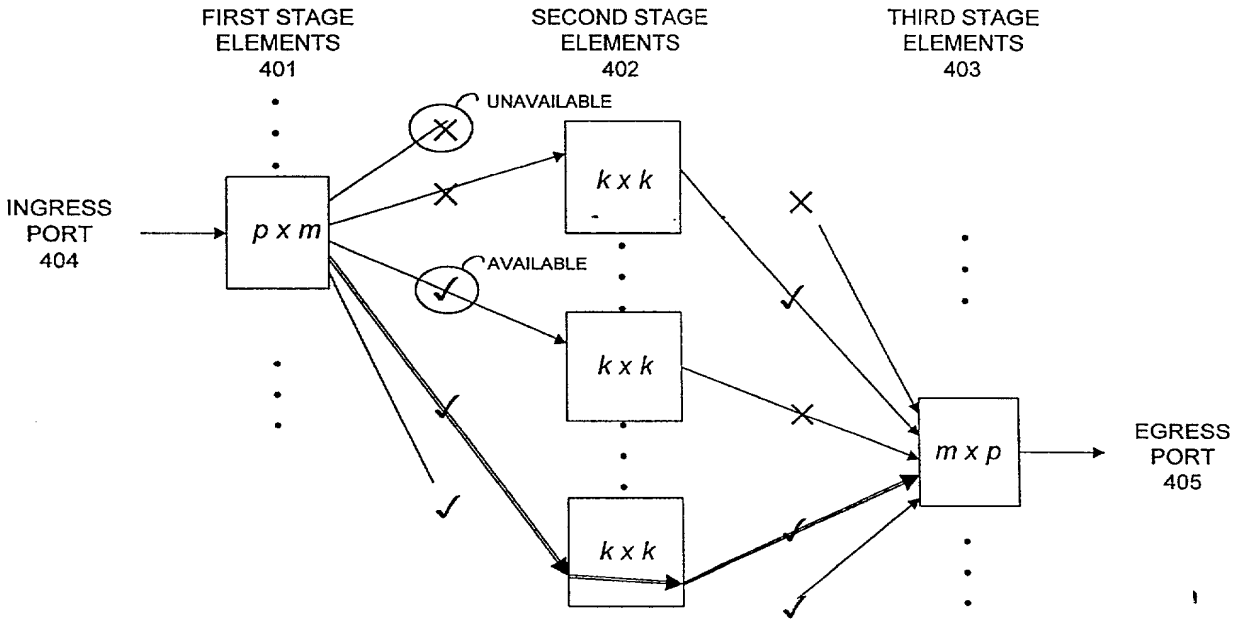
FIRST STAGE
ELEMENTS
401
SECOND STAGE
ELEMENTS
402
THIRD STAGE
ELEMENTS
403
UNAVAILABLE
AVAILABLE
INGRESS
PORT
404
p x m
k x k
k x k
k x k
m x p
EGRESS
PORT
405

FIGURE 4

TABLE
500

LINK (STAGES 1-2)	LINK (STAGES 2-3)
1	1
• • •	• • •
1	k x m
2	1
• • •	• • •
2	k x m
• • •	• • •
k x m	k x m

FIGURE 5

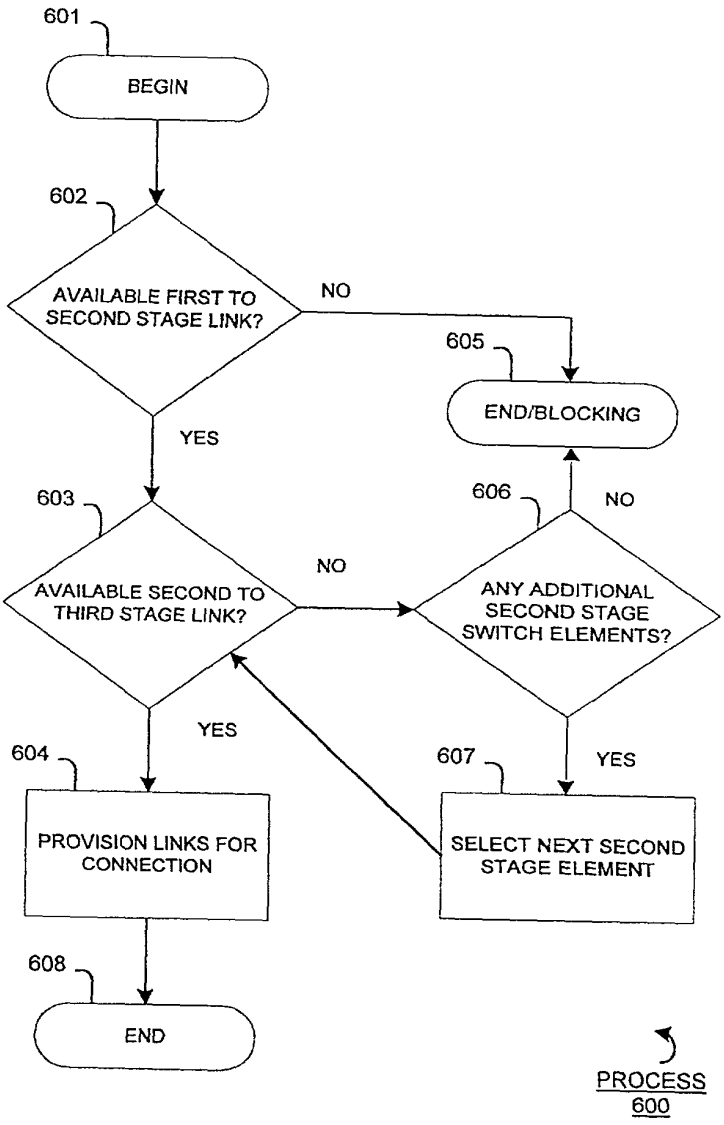
601
BEGIN
602
AVAILABLE FIRST TO SECOND STAGE LINK?
NO
605
END/BLOCKING
YES
603
AVAILABLE SECOND TO THIRD STAGE LINK?
NO
606
NO
ANY ADDITIONAL SECOND STAGE SWITCH ELEMENTS?
YES
604
PROVISION LINKS FOR CONNECTION
607
YES
SELECT NEXT SECOND STAGE ELEMENT
608
END
PROCESS
600

FIGURE 6

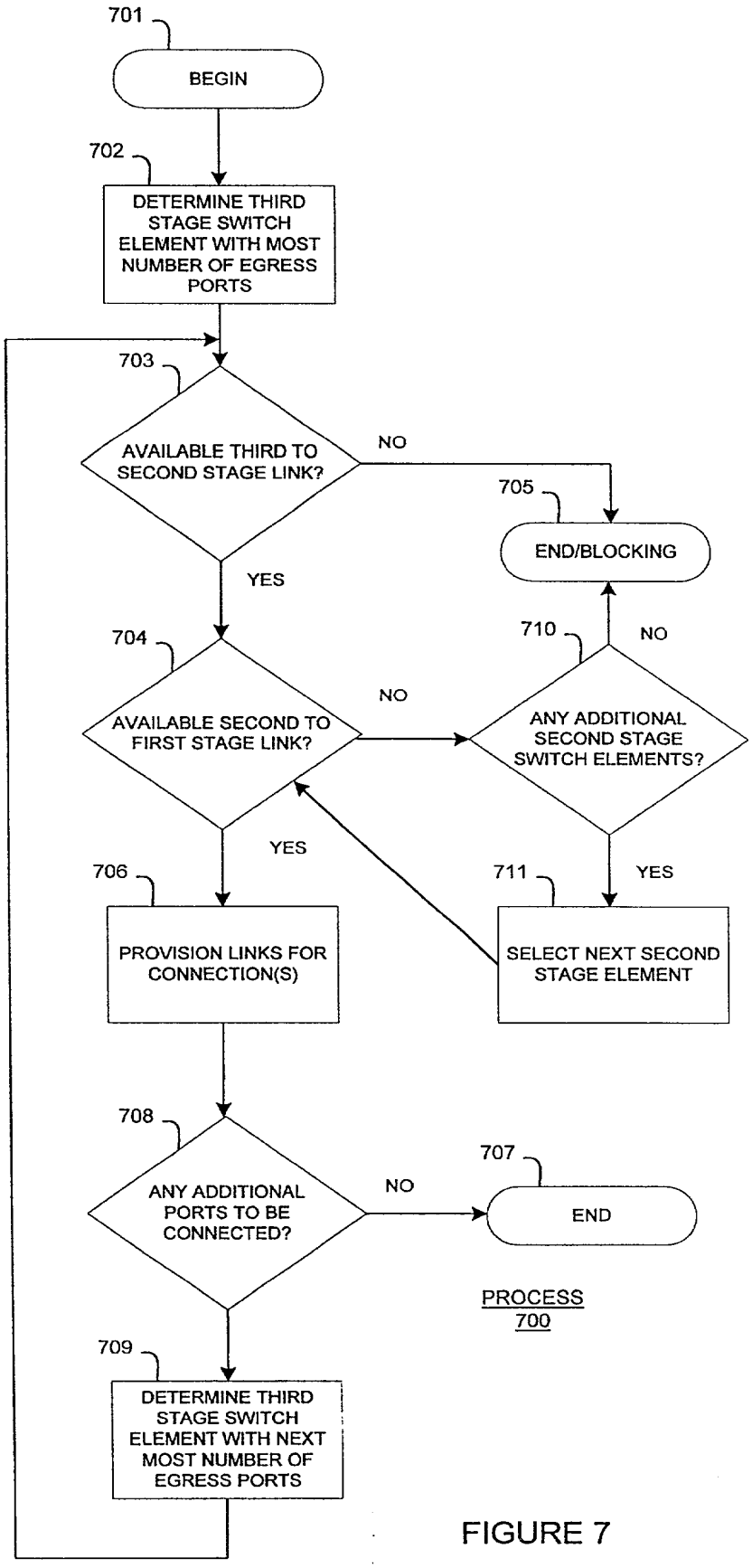
701
BEGIN
702
DETERMINE THIRD STAGE SWITCH ELEMENT WITH MOST NUMBER OF EGRESS PORTS
703
AVAILABLE THIRD TO SECOND STAGE LINK?
NO
705
END/BLOCKING
YES
704
AVAILABLE SECOND TO FIRST STAGE LINK?
NO
710
NO
ANY ADDITIONAL SECOND STAGE SWITCH ELEMENTS?
YES
706
PROVISION LINKS FOR CONNECTION(S)
711
YES
SELECT NEXT SECOND STAGE ELEMENT
708
ANY ADDITIONAL PORTS TO BE CONNECTED?
NO
707
END
PROCESS 700
709
DETERMINE THIRD STAGE SWITCH ELEMENT WITH NEXT MOST NUMBER OF EGRESS PORTS

FIGURE 7

METHOD FOR MANAGING CIRCUITS IN A MULTISTAGE CROSS CONNECT
By: Rumi S. Gonda
Attorney Docket No. S1415/7014

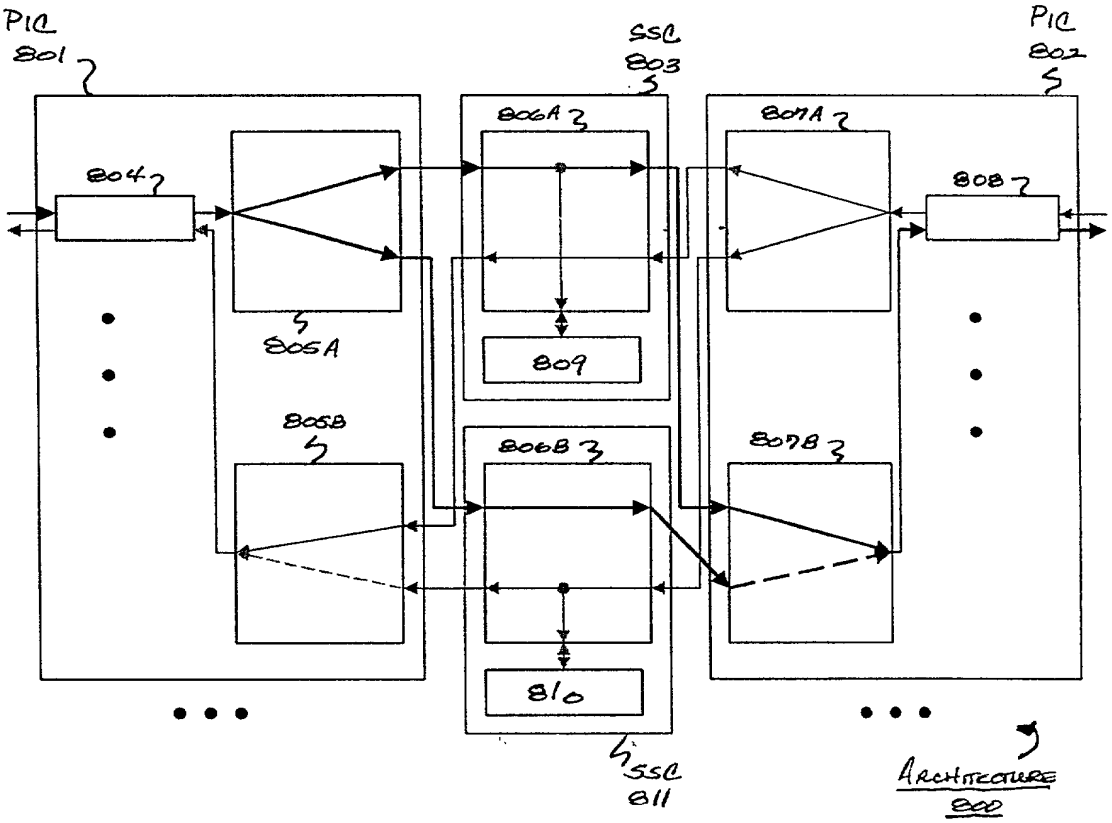

FIGURE 8

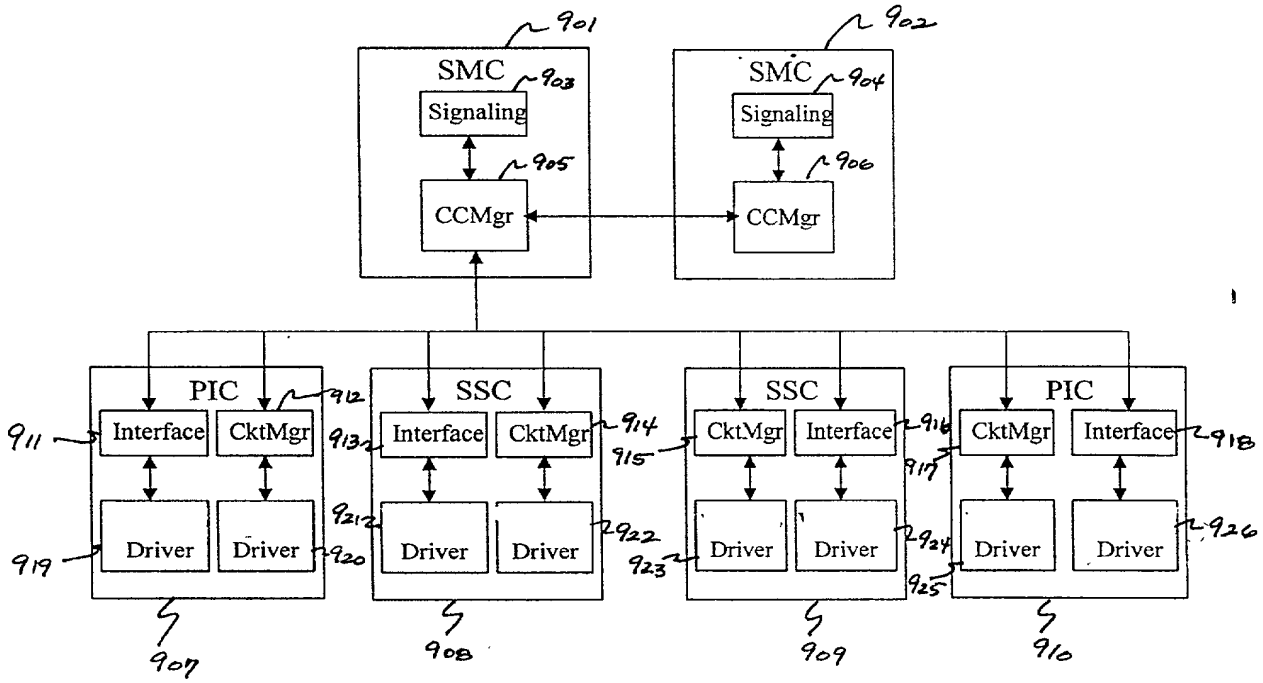

FIGURE 9

ARCHITECTURE 900